(2) An obligated party that carries a deficit into year i+1 must use the same approach to aggregation of facilities in year i+1 as it did in year i.

(d) An obligated party must comply with the requirements of paragraph (b) of this section for all of its imported gasoline or diesel fuel in the aggregate.

(e) An obligated party that is both a refiner and importer must comply with the requirements of paragraph (b) of this section for its imported gasoline or diesel fuel separately from gasoline or diesel fuel produced by its domestic refinery or refineries.

(f) Where a refinery or import facility is jointly owned by two or more parties, the requirements of paragraph (b) of this section may be met by one of the joint owners for all of the gasoline or diesel fuel produced/imported at the facility, or each party may meet the requirements of paragraph (b) of this section for the portion of the gasoline or diesel fuel that it produces or imports, as long as all of the gasoline or diesel fuel produced/imported at the facility is accounted for in determining the Renewable Volume Obligations under § 80.1407. In either case, all joint owners are subject to the liability provisions of § 80.1461(d).

(g) The requirements in paragraph (b) of this section apply to the following compliance periods: Beginning in 2010, and every year thereafter, the compliance period is January 1 through December 31.

[75 FR 14863, Mar. 26, 2010, as amended at 75 FR 26037, May 10, 2010]

§ 80.1407 How are the Renewable Volume Obligations calculated?

(a) The Renewable Volume Obligations for an obligated party are determined according to the following formulas:

(1) *Cellulosic biofuel.*

$$RVO_{CB,i} = (RFStd_{CB,i} * (GV_i + DV_i)) + D_{CB,i-1}$$

Where:

$RVO_{CB,i}$ = The Renewable Volume Obligation for cellulosic biofuel for an obligated party for calendar year i, in gallons.
$RFStd_{CB,i}$ = The standard for cellulosic biofuel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.
GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
$D_{CB,i-1}$ = Deficit carryover from the previous year for cellulosic biofuel, in gallons.

(2) *Biomass-based diesel.*

$$RVO_{BBD,i} = (RFStd_{BBD,i} * (GV_i + DV_i)) + D_{BBD,i-1}$$

Where:

$RVO_{BBD,i}$ = The Renewable Volume Obligation for biomass-based diesel for an obligated party for calendar year i, in gallons.
$RFStd_{BBD,i}$ = The standard for biomass-based diesel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.
GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
$D_{BBD,i-1}$ = Deficit carryover from the previous year for biomass-based diesel, in gallons.

(3) *Advanced biofuel.*

$$RVO_{AB,i} = (RFStd_{AB,i} * (GV_i + DV_i)) + D_{AB,i-1}$$

Where:

$RVO_{AB,i}$ = The Renewable Volume Obligation for advanced biofuel for an obligated party for calendar year i, in gallons.
$RFStd_{AB,i}$ = The standard for advanced biofuel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.
GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.
$D_{AB,i-1}$ = Deficit carryover from the previous year for advanced biofuel, in gallons.

(4) *Renewable fuel.*

$$RVO_{RF,i} = (RFStd_{RF,i} * (GV_i + DV_i)) + D_{RF,i-1}$$

Where:

$RVO_{RF,i}$ = The Renewable Volume Obligation for renewable fuel for an obligated party for calendar year i, in gallons.

$RFStd_{RF,i}$ = The standard for renewable fuel for calendar year i, determined by EPA pursuant to § 80.1405, in percent.

GV_i = The non-renewable gasoline volume, determined in accordance with paragraphs (b), (c), and (f) of this section, which is produced in or imported into the 48 contig-

uous states or Hawaii by an obligated party in calendar year i, in gallons.

DV_i = The non-renewable diesel volume, determined in accordance with paragraphs (d), (e), and (f) of this section, produced in or imported into the 48 contiguous states or Hawaii by an obligated party in calendar year i, in gallons.

$D_{RF,i-1}$ = Deficit carryover from the previous year for renewable fuel, in gallons.

(b) The non-renewable gasoline volume, GV_i, for an obligated party for a given year as specified in paragraph (a) of this section is calculated as follows:

$$GV_i = \sum_{x=1}^{n} G_x - \sum_{y=1}^{m} RBG_y$$

Where:

x = Individual batch of gasoline produced or imported in calendar year i.

n = Total number of batches of gasoline produced or imported in calendar year i.

G_x = Volume of batch x of gasoline produced or imported, as defined in paragraph (c) of this section, in gallons.

y = Individual batch of renewable fuel blended into gasoline in calendar year i.

m = Total number of batches of renewable fuel blended into gasoline in calendar year i.

RBG_y = Volume of batch y of renewable fuel blended into gasoline, in gallons.

(c) Except as specified in paragraph (f) of this section, all of the following products that are produced or imported during a compliance period, collectively called ''gasoline'' for the purposes of this section (unless otherwise specified), are to be included (but not double-counted) in the volume used to calculate a party's Renewable Volume Obligations under paragraph (a) of this section, except as provided in paragraph (f) of this section:

(1) Reformulated gasoline, whether or not renewable fuel is later added to it.

(2) Conventional gasoline, whether or not renewable fuel is later added to it.

(3) Reformulated gasoline blendstock that becomes finished reformulated gasoline upon the addition of oxygenate (RBOB).

(4) Conventional gasoline blendstock that becomes finished conventional

gasoline upon the addition of oxygenate (CBOB).

(5) Blendstock (including butane and gasoline treated as blendstock (GTAB)) that has been combined with other blendstock and/or finished gasoline to produce gasoline.

(6) Any gasoline, or any unfinished gasoline that becomes finished gasoline upon the addition of oxygenate, that is produced or imported to comply with a state or local fuels program.

(d) The diesel non-renewable volume, DV_i, for an obligated party for a given year as specified in paragraph (a) of this section is calculated as follows:

$$DV_i = \sum_{x=1}^{n} D_x - \sum_{y=1}^{m} RBD_y$$

Where:

x = Individual batch of diesel produced or imported in calendar year i.

n = Total number of batches of diesel produced or imported in calendar year i.

D_x = Volume of batch x of diesel produced or imported, as defined in paragraph (e) of this section, in gallons.

y = Individual batch of renewable fuel blended into diesel in calendar year i.

m = Total number of batches of renewable fuel blended into diesel in calendar year i.

RBD_y = Volume of batch y of renewable fuel blended into diesel, in gallons.

(e) Except as specified in paragraph (f) of this section, all products meeting the definition of *MVNRLM diesel fuel* at

§ 80.2(qqq) that are produced or imported during a compliance period, collectively called ''diesel fuel'' for the purposes of this section (unless otherwise specified), are to be included (but not double-counted) in the volume used to calculate a party's Renewable Volume Obligations under paragraph (a) of this section.

(f) The following products are not included in the volume of gasoline or diesel fuel produced or imported used to calculate a party's Renewable Volume Obligations according to paragraph (a) of this section:

(1) Any renewable fuel as defined in § 80.1401.

(2) Blendstock that has not been combined with other blendstock, finished gasoline, or diesel to produce gasoline or diesel.

(3) Gasoline or diesel fuel produced or imported for use in Alaska, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas, unless the area has opted into the RFS program under § 80.1443.

(4) Gasoline or diesel fuel produced by a small refinery that has an exemption under § 80.1441 or an approved small refiner that has an exemption under § 80.1442.

(5) Gasoline or diesel fuel exported for use outside the 48 United States and Hawaii, and gasoline or diesel fuel exported for use outside Alaska, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, Guam, American Samoa, and the Commonwealth of the Northern Marianas, if the area has opted into the RFS program under § 80.1443.

(6) For blenders, the volume of finished gasoline, finished diesel fuel, RBOB, or CBOB to which a blender adds blendstocks.

(7) The gasoline or diesel fuel portion of transmix produced by a transmix processor, or the transmix blended into gasoline or diesel fuel by a transmix blender, under § 80.84.

(8) Any gasoline or diesel fuel that is not transportation fuel.

§§ 80.1408–80.1414 [Reserved]

§ 80.1415 How are equivalence values assigned to renewable fuel?

(a)(1) Each gallon of a renewable fuel, or gallon equivalent pursuant to paragraph (b)(5) or (b)(6) of this section, shall be assigned an equivalence value by the producer or importer pursuant to paragraph (b) or (c) of this section.

(2) The equivalence value is a number that is used to determine how many gallon-RINs can be generated for a gallon of renewable fuel according to § 80.1426.

(b) Equivalence values shall be assigned for certain renewable fuels as follows:

(1) Ethanol which is denatured shall have an equivalence value of 1.0.

(2) Biodiesel (mono-alkyl ester) shall have an equivalence value of 1.5.

(3) Butanol shall have an equivalence value of 1.3.

(4) Non-ester renewable diesel with a lower heating value of at least 123,500 Btu/gal shall have an equivalence value of 1.7.

(5) 77,000 Btu (lower heating value) of biogas shall represent one gallon of renewable fuel with an equivalence value of 1.0.

(6) 22.6 kW-hr of electricity shall represent one gallon of renewable fuel with an equivalence value of 1.0.

(7) For all other renewable fuels, a producer or importer shall submit an application to the Agency for an equivalence value following the provisions of paragraph (c) of this section. A producer or importer may also submit an application for an alternative equivalence value pursuant to paragraph (c) if the renewable fuel is listed in this paragraph (b), but the producer or importer has reason to believe that a different equivalence value than that listed in this paragraph (b) is warranted.

(c) *Calculation of new equivalence values.*

(1) The equivalence value for renewable fuels described in paragraph (b)(7) of this section shall be calculated using the following formula:

$$EV = (R/0.972) * (EC/77,000)$$

Where:

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